

1. A vaccine comprising a nucleotide sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2, and SEQ ID NO:6.

2. A test kit comprising a monospecific antisera produced using an isolated and purified bacterial blood group antigen binding adhesin protein (BabA) from *Helicobacter pylori* species, wherein said protein binds specifically to fucosylated Lewis<sup>b</sup> type I and H-1 blood group antigen-glycoconjugates and,

wherein said protein contains less than 20% bacterial protein impurities, has a molecular weight in the interval of 73 to 75 kDa as determined by sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), and is not a HopA, HopB, HopC, HopD, or HopE protein.

3. An immunoglobulin composition, wherein said composition exhibits specific activity to a Lewis<sup>b</sup> binding adhesin protein or fractions thereof, expressed by *Helicobacter pylori*.

4. The immunoglobulin composition according to claim 3, wherein said adhesin in its unfractionated form has a molecular weight in the interval of about 70 to 77 kDa, preferably in the interval of 73 to 75 kDa and most preferably about 73500 kDa, as determined by SDS-PAGE.

5. The immunoglobulin composition according to any one of claims 3 or 4 wherein said adhesin or fractions thereof comprises the following amino acid sequence:

EDDGFYTSVGYQIGEEAAQMV (SEQ ID NO:5)

or homologues thereof.

6. An antibody, which exhibits specific activity to a Lewis<sup>b</sup> binding adhesin protein or fractions thereof, expressed by *Helicobacter pylori*.

7. The antibody according to claim 6, wherein said adhesin in its unfractionated form has a molecular weight in the interval of about 70 to 77 kDa, preferably

in the interval of 73 to 75 kDa and most preferably about 73500 kDa, as determined by SDS-PAGE.

8. The antibody according to any one of claims 6 or 7, wherein said adhesin or fractions thereof comprises the following amino acid sequence:

EDDGFYTSVG YQIG EAAQMV (SEQ ID NO:5)

or homologues thereof.

9. The antibody according to claim 6, wherein said antibody is a monoclonal antibody.

10. A method of manufacturing an immunoglobulin composition according to claim 3, comprising the following steps:

immunizing an animal with a Lewis<sup>b</sup> binding adhesin protein or fractions thereof, expressed by *Helicobacter pylori*,

isolating the immunoglobulin fraction from an excretion of said host animal, and  
purifying of the immunoglobulin preparation.

11. The method according to claim 10, wherein said animal is a cow and the immunoglobulin fraction is isolated from the milk, preferably the colostrum thereof.

12. The method according to claim 10, wherein said animal is a chicken and the immunoglobulin fraction is isolated from the egg yolk thereof.

13. A method of manufacturing an antibody according to claim 6, wherein method comprises the following steps:

immunizing an animal with a Lewis<sup>b</sup> binding adhesin protein or fractions thereof, expressed by *Helicobacter pylori*,

fusing immunised, immunoglobulin producing cells with a neoplastic cell line,  
selecting and growing cells expressing said antibody, and  
purifying the antibodies.

14. The method of claim 13, further comprising expressing said antibody by a culture of viable microorganisms in an expression system, where said microorganisms or organisms are generally recognised as safe (GRAS) and genetically modified to express said antibody.

15. The method according to claim 14, wherein said microorganism is selected from the group consisting of bacteria of the species *Lactobacillus*, *Staphylococcus* and *Enterobacteriaceae*.

16. A pharmaceutical preparation for the treating and/or preventing *Helicobacter pylori* infection in humans comprising the immunoglobulin composition according to claim 3.

17. A pharmaceutical product for the treating and/or preventing gastric ulcers comprising the immunoglobulin composition according to claim 3.

18. A pharmaceutical product for the treating and/or preventing acid peptic disease comprising comprising the immunoglobulin composition according to claim 3.

19. A pharmaceutical product for the treating and/or preventing *Helicobacter pylori* infection in humans comprising the antibody according to claim 6.

20. A pharmaceutical product for the treating and/or preventing gastric ulcers comprising the antibody according to claim 6.

21. A pharmaceutical product for the treating and/or preventing acid peptic disease comprising the antibody according to claim 6.

22. A method for treating and/or preventing *Helicobacter pylori* infections in a human, comprising the step of orally administering an effective amount of an immunoglobulin composition according to claim 3 to said human.

23. A method for treating and/or preventing *Helicobacter pylori* infections in a human, comprising orally administering an effective amount of an antibody according to claim 6 to said human.

24. A method for treating and/or preventing *Helicobacter pylori* infections in a human, said method comprising orally administering an effective amount of a culture of viable microorganisms in an expression system, wherein said microorganism or organisms are generally recognised as safe (GRAS) and genetically modified to express an antibody according to any one of claims 8 to 9.

25. An expression system, comprising a culture of viable microorganisms wherein said microorganism or organisms are generally recognised as safe (GRAS) and genetically modified to express an antibody according to any one of claims 8 – 9.

26. A method for treating and/or preventing *Helicobacter pylori* infections in humans, said method comprising orally administering an effective amount of a culture of viable microorganisms in an expression system, wherein said microorganisms or organisms are generally recognised as safe (GRAS) and genetically modified to express an adhesin protein according to claim 1.